

10/11



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/629,967      | 07/30/2003  | Seh W. Kwa           | 1000-0012           | 9542             |

7590 08/31/2006

Law Offices of John C. Scott  
c/o PortfolioIP  
P.O. Box 52050  
Minneapolis, MN 55402

EXAMINER

PHAM, TUAN

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2618

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                            |  |
|------------------------------|-------------------------------|----------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/629,967 | Applicant(s)<br>KWA ET AL. |  |
|                              | Examiner<br>TUAN A. PHAM      | Art Unit<br>2618           |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 24-36 is/are rejected.
- 7) ☒ Claim(s) 21-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings submitted on 06/12/2006 has been considered by Examiner and made of record in the application file.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

**4. Claims 1-3, 5, 8-10, 16-18, 25, 30, and 33-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Grabon et al. (Pub. No.: US 2004/0053578, hereinafter, "Grabon").**

**Regarding claims 1, 16, 30, and 33,** Grabon teaches an apparatus and method comprising:

an interference detector (read on noise management circuit) to detect interference within wireless circuitry that is caused by an interconnect (read on bus connect to various components in the terminal) within the apparatus (see figure 3, noise management circuit 322 determines the noise on the bus 304, [0043]); and

a spectral shaping unit (read on noise management circuit) to modify at least one transmission characteristic associated with the interconnect in response to detection of interference by said interference detector to mitigate interference caused by said interconnect (see figure 3, noise management circuit 322 operates to reduce the noise and control the data transmission rate in the terminal [0042-0049]).

**Regarding claims 2 and 17,** Grabon further teaches an error rate associated with said wireless circuitry, said error rate being related to interference within said wireless circuitry (see [0063]).

**Regarding claims 3 and 18,** Grabon further teaches a ranging unit to determine a communication range associated with said wireless circuitry, said communication range being related to interference within said wireless circuitry (see [0035, 0064]).

**Regarding claim 5**, Grabon further teaches said at least one transmission characteristic associated with said interconnect includes a data rate of said interconnect (see [0049]).

**Regarding claim 8**, Grabon further teaches the interconnection includes a bus (see figure 3, bus 304).

**Regarding claim 9**, Grabon further teaches said interconnect provides communication between said wireless circuitry and a host chip set (see figure 3, processor 302).

**Regarding claims 10 and 34**, Grabon further teaches said wireless circuitry includes a wireless transceiver module (see figure 4, radio transceiver 408).

**Regarding claim 25**, Grabon further teaches adjusting includes selecting at least one new transmission characteristic value for use with said interconnect based on a wireless application presently being executed (see [0049]).

**5. Claims 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Clow et al. (U.S. Patent No.: 6,005,890, hereinafter, "Clow").**

**Regarding claim 11**, Clow teaches an apparatus comprising:

an interconnect to provide communication between at least two components of said apparatus (see link 12 is connected between processor 16a and processor 20);  
and

a data rate adjustment unit (read on controller element 16) to adjust a data rate used to transmit data on said interconnect based on interference within said apparatus

that is generated by said interconnect, wherein adjusting said data rate reduces the level of interference being generated by said interconnect (see figure 3, controller element 16, col.5, ln.1-49).

**Regarding claim 12**, Clow further teaches a slew rate adjustment unit to adjust a slew rate associated with said interconnect based on interference within said apparatus that is being generated by said interconnect, wherein adjusting said slew rate associated with said interconnect reduces the level of interference being generated by said interconnect (see figure 3, controller element 16, col.5, ln.1-49).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**7. Claims 6, 20, 24, 31-32, and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabon et al. (Pub. No.: US 2004/0053578, hereinafter, "Grabon") in view of Clow et al. (U.S. Patent No.: 6,005,890, hereinafter, "Clow").**

Regarding claims 6, 24, 32, and 36, Grabon discloses invention, but fails to disclose adjust a slew rate associated with said interconnect based on interference. However, Clow teaches such feature (see col.3, ln.5-14, col.5, ln.1-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Clow into view of Grabon in order to reduce the interference and obtain a faster communication rate as suggested by Clow at col.3, ln.7-14.

Regarding claims 20, 31, and 35, Clow further teaches adjusting a data rate of the Interconnection (see col.5, ln.1-45).

**8. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clow et al. (U.S. Patent No.: 6,005,890, hereinafter, "Clow") in view of Grabon et al. (Pub. No.: US 2004/0053578, hereinafter, "Grabon").**

Regarding claim 14, Clow discloses invention, but fails to disclose the interconnection includes a bus. However, Grabon teaches such features (see figure 3, bus 304).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Grabon into view of Clow in order to connect the various components together.

**Regarding claim 15**, Grabon further teaches said interconnect is coupled between a wireless module and another component within said apparatus (see figure 3).

9. **Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabon et al. (Pub. No.: US 2004/0053578, hereinafter, "Grabon") in view of Sundberg et al. (U.S. Pub. No.: 2004/0116123, hereinafter, "Sundberg").**

**Regarding claim 26**, Grabon teaches a method comprising:  
adjusting at least one transmission characteristic associated with an interconnect within a device that includes said wireless transceiver when said measured interference-related parameter meets a predetermined criterion, wherein adjusting is performed to reduce interference generated by said interconnect (see figure 3, figure 4, transceiver 408, [0039-0049]).

It should be noticed that Grabon fails to teach measuring an interference-related parameter associated with a wireless transceiver. However, Sundberg teaches such features (see [0004, 0011]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Sundberg into view of Grabon in order to reduce the noise as suggested by Grabon at [0014].

**Regarding claim 27**, Grabon further teaches repeating measuring and adjusting until said interference-related parameter does not meet said predetermined criterion (see [0035]).



**Regarding claim 28**, Grabon further teaches an error rate associated with said wireless circuitry, said error rate being related to interference within said wireless circuitry (see [0063]).

**Regarding claim 29**, Grabon further teaches a ranging unit to determine a communication range associated with said wireless circuitry, said communication range being related to interference within said wireless circuitry (see [0035, 0064]).

**10. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clow et al. (U.S. Patent No.: 6,005,890, hereinafter, "Clow") in view of Evoy (U.S. Pub. No.: 2006/0059213).**

**Regarding claims 7 and 13**, Clow disclosed invention, but fails to disclose PCI Express Interconnection. However, Evoy teaches such feature (see [0036]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Evoy into view of Clow in order to connect peripheral component to a central processing complex as suggested by Evoy at column 1, [0006].

**11. Claims 4 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabon et al. (Pub. No.: US 2004/0053578, hereinafter, "Grabon") in view of Razavilar et al. (Pub. No.: US 2003/0181211, hereinafter, "Razavilar").**

**Regarding claims 4 and 19**, Grabon discloses invention, but fails to disclose a

throughput associated with said wireless circuitry, said throughput being related to interference within said wireless circuitry.. However, Razavilar teaches such feature (see col.6, [0063]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Razavilar into view of Grabon in order to reduce the interference.

***Allowable Subject Matter***

12. Claims 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2618

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618  
August 23, 2006  
Examiner

Tuan Pham

Supervisory Patent Examiner  
Technology Center 2600

Matthew Anderson